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File: USPT

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DOCUMENT-IDENTIFIER: US 6030622 A

TITLE: Herbal extract composition and method with immune-boosting capability

Brief Summary Text (5):

The history of herbology is inextricably intertwined with modern medicine. Many familiar modern medications have been developed from ancient healing traditions associated with specific plants. The medicinal properties of many plants have been identified with specific chemical compounds which have been isolated, purified and, in many cases, synthetically reproduced. Many well known drugs were originally derived from plants. Salicylic acid, the precursor for aspirin, was originally isolated from white willow bark and the meadowsweet plant. Quinine, which is used to treat malaria, was derived from Cinchona bark. Vincristine, which is used in cancer treatment, comes from periwinkle. The cancer drug Taxol was originally isolated from the bark and needles of the Pacific Yew Tree. Perhaps most famous are morphine and codeine, which are derived from the opium poppy. Morphine is still the standard against which new synthetic pain relief drugs are measured.

Brief Summary Text (10):

Persons who suffer from immuno-suppressive diseases or conditions such as human immunodeficiency virus (HIV), cancer, hepatitis, renal failure, diabetes, asthma, arthritis, and the like often experience decreased levels of lymphocytes and correspondingly decreased levels of cytokines. For example, where individuals have been infected by HIV, lymphocytes having a cell surface antigen known as CD4 are present in uncharacteristically low numbers. While in healthy individuals these CD4 lymphocyte cells are present in concentrations of about 800 cells per milliliter of serum, HIV-infected individuals exhibit as few as 200 CD4 cells per milliliter of serum when opportunistic infections develop. Specific types of CD4 lymphocytes known as TH1 and TH2 cells appear to be particularly important in the cell-mediated response to HIV infection. TH1 cells produce interleukin-2 (IL-2) and gamma interferon (IFN.gamma.). TH2 cells produce interleukins -4, -5 and -10 (IL-4, IL-5 and IL-10). The cytokines secreted by TH1 and TH2 cells are believed to have an opposing effect on each other, with cytokines secreted by TH1 cells acting to regulate the cytokine production of TH2 cells, and vice versa. Early in the course of HIV infection, the TH1 response dominates, and secretion of IL-2 by TH1 cells increases the activity of CD8 lymphocytes.

Brief Summary Text (12):

Various herbs are believed to have a beneficial effect on the human immune system. For example, Echinacea Purpurea and Echinacea Angustifolia are believed to stimulate T-cell activity. Mowery, D. B.; The Scientific Validation of Herbal Medicine, Keats Publishing, Inc., New Canaan Press, 1986. P. 118-119. Astragalus Membranaceus is believed to be able to stimulate production of interferon and Immunoglobulins A and G (IgA and IgG) in mice. Kaiser, J. D.; Immune Power. A Comprehensive Treatment Program for HIV. St. Martin's Press, New York, 1993, p. 59-60. However, a plant-derived or herbal extract which effectively provides a stimulative or boosting effect to the human immune system has heretofore been unknown.

Detailed Description Text (57):

The above in vitro experiments and resulting data demonstrate that the herbal extract composition of the invention is a useful potential source or candidate for immunity boosting therapies and treatments for humans and animals suffering from disorders,

diseases infections or conditions, including immunosuppressed conditions due to leukemia, renal failure, various cancers and tumors, viral infections, bacterial infections, and parasitic infections. The precise chemical composition(s) and pharmacological mechanism(s) which result in the in vitro blast transformation stimulation and cytokine production have not been elucidated. The herbal extract composition of the invention may contain a single pharmacological active ingredient, component or agent acting alone, or a combination of such ingredients, components or agents, and/or biological metabolites or derivatives thereof acting separately or synergistically. In vivo therapies and treatments using the herbal extract composition of the invention will likely be based on orally ingested dosages of the herbal extract composition in liquid or solid form. Rectal, parenteral, intravenous, topical, aerosol inhalation or subcutaneous routes for in vivo administering of the herbal extract composition of the invention are also possible. The herbal extract composition may also be administered in vivo in admixture or combination with appropriate excipients, carriers, antiviral agents, immune modulators, chemotherapeutic agents, antibodies, or combinations thereof. Pharmacological preparations of the invention may be dosage unit forms such as tablets, capsules, suppositories, ampoules or metered liquid or aerosol dosages.